

TSAPENKO, M.P., kand.tekhn.nauk

Development of automatic control methods and electric measurements.  
Vest. AN SSSR 32 no.3:98-99 Mr '62. (MIRA 15:2)  
(Electric measurements—Congresses)  
(Automatic control—Congresses)

S/115/63/000/004/002/011  
E140/E135

AUTHORS: Rabinovich V.I., and Tsapenko M.P.

TITLE: On the quantity of measurement information

PERIODICAL: Izmeritel'naya tekhnika, no.4, 1963, 7-10

TEXT: The article is based on a communication presented at the Vsesoyuznaya konferentsiya po avtomaticheskому kontrolyu i metodam elektricheskikh izmereniy (All-Union Conference on Automatic Control and Electrical Measurement Methods) held in Novosibirsk, September 1962. It describes a procedure for determining the quantity of information obtained in a measurement process, under the following assumptions: 1) since the measured quantity and the error of intermediate steps in its conversion, take on a priori unknown values, they are to be considered random stationary variables; 2) the measurements are assumed to be statistically independent; 3) the conversion errors are assumed independent of the values of the measured quantity, and additive with respect to the latter; 4) the errors of sampling and the insensitive zone (threshold) of the quantisation apparatus are assumed negligibly small. Then the quantity of information

Card 1/2

On the quantity of measurement ...

S/115/63/000/004/G02/011  
E140/E135

constitutes a measure of the degree to which successive values of the measured process are dependent. The quantity of information is zero if there is no dependence between successive values (zero autocorrelation), and maximum if there is a unique functional dependence relating any two values. Shannon's theory is applied to obtain suitable formulas for this statement of the problem. There are 3 figures.

Card 2/2

L 19604-63

EWT(d)/FCC(w)/BDS

AFFTC/IJP(C)

ACCESSION NR: AP3003200

S/0115/63/000/006/0001/0005

X B

AUTHOR: Rabinovich, V. I.; Tsapenko, M. P.

TITLE: Quantity of information with a uniform distribution of measurand and  
error

SOURCE: Izmeritel'naya tekhnika, no. 6, 1963, 1-5

TOPIC TAGS: information, information quantity, measurand, error

ABSTRACT: A further development in the theory of these authors (see Izmeritel'naya tekhnika, 1963, no. 4) is reported. The process of measurement can be characterized by the quantity of information, provided the probability distribution of measurand is known. The quality of measuring instruments is evaluated on the assumption that the measurand probability distribution is uniform; also, the distribution of error of the intermediate transformations is assumed to be uniform. These formulas are developed for evaluating the

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L 19604-63

ACCESSION NR: AP3003200

quantity of measurement information:

$$I(x/z) = \ln \frac{L}{\Delta} - \bar{H}_A(x/z) = \ln N_A - \bar{H}_A(x/z) \quad (10)$$

or  $I(x/z) = \ln \frac{L}{y} - \ln \frac{\Delta}{y} - \bar{H}_A(x/z) =$   
 $= \ln N_A - [\bar{H}_A(x/z) + \ln n] = \ln N_A - \bar{H}_A(x/z) \quad (11)$

where L is the range of variation of the measurand x; y is the range of variation of the error y; other symbols are explained in the reference article. Authors' conclusions: Assumption of the uniformly distributed error results, other things being equal, in the minimum quantity of measurement information; meanwhile, the formulas for the quantity of information are simple; hence, the method given in the article can be used for comparing instruments and also, in some cases, for characterizing the quality of measuring processes (e.g., in designing multimeters). Orig. art. has: 3 figures, 14 formulas, and 2 tables.

Card 2/12

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

RABINOVICH, V.I.; TSAPENKO, M.P.

Information content for the case of an even distribution of the  
measured magnitude and a normal distribution of the error.  
(MIRA 16:12)  
Izm. tekhn. no.10:8-13 0 '63.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

SINITSYI, Boris Sorgeyevich; TSAPENKO, M.P., doktor tekhn. nauk,  
otv. red.; SHALINA, I.V., red.

[Automatic correlators and their applications] Avtomati-  
cheskie korrelatory i ikh primenenie. Novosibirsk, ied.  
izd. otdel Sibirskego otd-ntia AN SSSR, 1964. 215 p.  
(MIR. 17:8)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

KARANDEYEV, K.S., otv. red.; KABBYKOV, L.M., kand. tekhn.  
naук, red.; TUMENOV, N.I., kand. tekhn. nauk, red.;  
SHALINA, L.V., rec.

[Automatic control and electrical measuring techniques;  
metody i metody elektricheskikh izmerenii; trudy Novosibirsk, Red.-izd. otdel  
Sibirskogo otdeleniya AN SSSR. Vol.1. [Electrical measuring  
techniques. Analysis and synthesis of regulation and  
control systems. Elements of automatic control devices]  
Metody elektricheskikh izmerenii. Analiz i sintez sistem  
upravleniya i kontrolya. Elementy ustroystva avtomatiches-  
kogo kontrolya. 1964. 250 p. (MIKA 1719)

1. Traditsionnaya konferentsiya po avtomaticheskому  
kontrolju i metodam elektricheskikh izmerenij. Izd,  
Novosibirsk, 1964. 2. Cullen-kirren-penman et al. (for  
Karandeyev).

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

KARANDEYEV, N. B.; TSAPENKO, M. F.

"Mesure et cybernétique."

report submitted for 4th Intl Cong, Cybernetics, Namur, Belgium, 21-23 Oct 64.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

TSAPENKO, M.P.

International symposium on the theory of measurements and measuring  
instruments. Izm. tekhn. no.1:58-59 Ja '64.  
(MIRA 17:11)

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CIA-RDP86-00513R001756910018-3"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

TSAPLEV, M.P.

New blast furnace. Trudy LPI no.225:187-220 '64.

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CIA-RDP86-00513R001756910018-3"

ACC NR: AP6007536

SOURCE CODE: UR/0410/65/000/006/0005/0018

AUTHOR: Il'yenkov, A. I. (Novosibirsk); Tsapenko, M. P. (Doctor of technical sciences, Novosibirsk)

ORG: none

TITLE: Measuring equipment and microminiaturization

SOURCE: Avtometriya, no. 6, 1965, 5-18

TOPIC TAGS: electric measuring instrument, circuit microminiaturization

ABSTRACT: Based on 1956-65 Soviet and a few 1959-65 Western sources, this review covers the following points: Packing density of components, thin-film circuits, and functional units; Methods of microminiaturization of measuring instruments (module structures, micromodules, thin-film circuits, integral units, prospects); Principal characteristics of microminiature elements (resistor tolerances, capacitor tolerances, thin-film transistor, cryotron characteristics, cryosar, cryosistor, photoconducting layers, chemotron, miniature power supplies); Specific measuring elements (thin-film strain gages, electrochemical pressure sensors, Hall sensors, semiconductor photocells, microthermoresistors, SHF and IR receivers); Presumed advantages of microminiaturization of measuring equipment (smaller size and weight, higher reliability, lower cost, information processing). Orig. art. has: 2 figures and 1 table.

SUB CODE: 09 / SUBM DATE: 07Aug65 / ORIG REF: 016 / OTH REF: 008

UDC: 681.20

Cord 1/1 vmb

ACC NR: AM6004772

Monograph

UR

Karandeyev, Konstantin Borisovich; Karpyuk, Bogdan Vladimirovich; Kasperovich, Aleksandr Nikolayevich; Pushnoy, Boris Mikhaylovich; Rabinovich Vladimir Izrailevich; Sinitsyn, Boris Sergeyevich; Tverdokhleb, Petr YEmel'yanovich; TSapenko, Mikhail Petrovich.

Electrical methods of automatic control (Elektricheskiye metody avtomaticheskogo kontrolya) Moscow, Izd-vo "Energiya", 1965. 383 p. illus., biblio. 10,000 copies printed

TOPIC TAGS: automatic control design, automatic control equipment, data processing

PURPOSE AND COVERAGE: The book, written by staff members of the Institute of Automation and Electrometry of the Siberian Department of the Academy of Sciences SSSR, deals with electric automatic control systems, their structure, and their principal elements and characteristics. The emphasis is on the relation between production quality control and automatic inspection of the manufactured products, and emphasizes statistical methods, automatization of various measurements, and the handling of the information and data generated by the automatic control devices. Different systems, components, and individual control and measurement equipment are also described. Chapter 1 was written by K. B. Karandeyev, B. V. Karpyuk, A. N. Kasperovich, V. I. Rabinovich, P. YE. Tverdokhleb, and M. P. TSapenko, Ch. 3 by V. I. Rabinovich and M. P. TSapenko, Ch. 4 by B. S. Sinitsyn, Chs. 5 and 6 mainly by B. V. Karpyuk, Chs. 7 and 8 by A. N. Kasperovich, Ch. 9 by B. M. Pushnoy, Chs. 11 and 12 mainly by P. E. Tverdokhleb, and the appendix by B. V. Karpyuk. Authors thank the scientific workers

UDC: 621.317

Card 1/3

ACC NR. AM6004772

V. M. YEfimov and G. G. Matushkin who wrote the main material of Chs. 2 and 10 respectively; and also to the scientific staff members M. A. Rozov, G. A. Shtamberger, G. YE. YEremenchuk, YU. I. Baklanov, and others for supplying some data and for a discussion of individual problems considered in the book. They also thank L. YE. Pincbuk for participating in the preparation of the manuscript.

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Part III. Automatic control systems -- 309  
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Automatic control systems with single utilization of the control-channel devices  
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SUB CODE: 13/ SUBM DATE: 30Jun65/ ORIG REF: 198/ OTH REF: 066

Card 3/3

L 34839-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)  
ACC NR: AP6015208 (N) SOURCE CODE: BC UR/0410/65/000/001/0035/0044  
AUTHOR: Kasperovich, A. N. (Novosibirsk); Klistorin, I. F. (Novosibirsk);  
Tsapenko, M. P. (Novosibirsk)

ORG: none

TITLE: Automatic digital measuring instruments

SOURCE: Avtometriya, no. 1, 1965, 35-44

TOPIC TAGS: measuring instrument, digital measuring instrument, automatic  
measuring instrument

ABSTRACT: Based on 1957-64 Soviet and (four) 1962-64 Western publications,  
this review briefly covers the following points: Methods of comparing measurand  
and known quantity in digital instruments (general block diagram, digit-by-digit  
and sweep balancing, variable-structure devices, scale transformations).

UDC: 681.2.082 + 621.317.08

Card 1/2

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

KARPYUK, B.V. (Novosibirsk); TSAPENKO, M.P. (Novosibirsk)

Measuring information systems. Avtometria no.2:18-25 '65.  
(MIRA 18:9)

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CIA-RDP86-00513R001756910018-3"

GORELIKOV, N.I. (Novosibirsk); KASPEROVICH, A.N. (Novosibirsk); KORSHEVER,  
I.I. (Novosibirsk); TSAPENKO, M.P. (Novosibirsk)

Construction of digital balance measuring instruments with  
variable structure. Avtometria no.4:75-80 '65.

L 1970-66 GS

ACCESSION NR: AT5017382

UR/0000/64/000/000/0042/0047 22  
B+1

AUTHOR: Kasperovich, A. N. (Novosibirsk); Rakitskaya, V. A. (Novosibirsk);  
Tsapenko, M. P. (Doctor of technical sciences) (Novosibirsk)

TITLE: Digital transistorized millivoltmeter with a luminescent reading device

SOURCE: Konferentsiya po avtomaticheskому контролю, i metodam  
elektricheskikh izmereniy, 3d, Novosibirsk, 1961. Avtomaticheskiy kontrol' i  
metody elektricheskikh izmereniy; trudy konferentsii, t. 2: Tsifrovyye  
izmeritel'nyye pribory. Elektricheskiye izmereniya neelektricheskikh velichin.  
Ustroystva avtomaticheskogo kontrolya i upravleniya v promyshlennosti  
(Automatic control and electrical measuring techniques; transactions of the  
conference, v. 2: Digital measuring instruments. Electrical measurements of  
nonelectrical quantities. Devices for automatic control and regulation in  
industry). Novosibirsk, Redizdat Sib. otd. AN SSSR, 1964, 42-47

TOPIC TAGS: millivoltmeter, digital instrument

ABSTRACT: Connected with the works of R. L. Gilbert (J. of British IRE, v. 20,  
no. 7, 1960) and A. C. Blay et al. (Trans. Soc. of Instr. Technology, v. 13, no. 2,

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ACCESSION NR: AT5017382

June 1961), the development of a new digital transistorized millivoltmeter, based on a digit-by-digit balancing method, is reported. Principal circuits are explained. Supplied by a 50-cps power, the millivoltmeter can make 50 measurements per sec, each taking 3 msec. The luminescent-display afterglow time is 8 msec. Number of transistors used, 115; of diodes, 340. Basic error, 0.2%. An additional error of 0.2% appears when the resistance of the source of voltage to be measured increases from 0 to 200 ohms. No zero-point drift was observed after a 30-min warm-up period. "In conclusion, the authors wish to thank V. I. Rabinovich for his considerable help in developing the control circuit of the luminescent elements." Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 11Nov64

NO REF SOV: 003

ENCL: 00

OTHER: 002

SUB CODE: EE, EC

AC  
Card 2/2

L 2942-66 EWT(d)/ENP(v)/ENP(k)/ENP(h)/ENP(l)  
ACCESSION NR: AP5024992

UR/0286/65/000/016/0055/0056  
621.317.791 : 621.374

21  
13

AUTHOR: Tsapenko, M. P.; Kasperovich, A. N.

TITLE: A digital measuring instrument. Class 21, No. 173843

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 55-56

TOPIC TAGS: electronic measurement, measuring instrument

ABSTRACT: This Author Certificate introduces a digital measuring instrument which operates on the varying compensation principle. The device contains a reference unit, a comparator, electronic switch, register, pulse generator, and distributor. For adaptation of the instrument by using the best form of compensation in given conditions, the register flip-flops are interconnected as well as being connected to the comparator, pulse generator and distributor through AND and OR logic gates which control the operation of the compensation switch (see Fig. 1 of Enclosure). Orig. art. has:

[14]

ASSOCIATION: Institut avtomatiki i elektrometrii SO AN SSSR (Institute of Automation and Electrometry, SO AN SSSR)

Card 1/3

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L 2942-66

ACCESSION NR: AP5024992

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ENCL: 01

0  
SUB CODE: EC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4/10

Card 2/3

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CIA-RDP86-00513R001756910018-3"

L 2942-66

ACCESSION NR: AP5024992

ENCLOSURE: 01

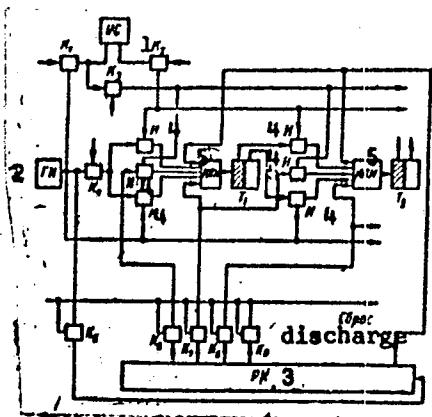


Fig. 1. Digital measuring instrument

1 - Comparator; 2 - pulse generation;  
3 - pulse distributor; 4 - AND gates;  
5 - OR gates; K<sub>1-9</sub> - switches;  
T<sub>1</sub>, T<sub>2</sub> - flip-flops.

CC  
Card 3/3

KARANDEYEV, Konstantin Borisovich; KARPYUK, Bogdan Vladimirovich;  
KASPEROVICH, Aleksandr Nikolayevich; PUSHKOY, Boris  
Mikhaylovich; RABINOVICH, Vladimir Izrailevich; SINITSIN,  
Boris Sergeyevich; TVERDOKHLEB, Petr Yemel'yanovich;  
TSAPENKO, Mikhail Petrovich; Prinimal'nye: YERMOV,  
V.M., nauchn.sotr.; MATUSHKIN, G.G., nauchn.sotr.

[Electrical methods in automatic control] Elektricheskie  
metody avtomaticheskogo kontrolya. Moskva, Energia,  
1965. 383 p. (MIRA 18:8)

ACCESSION NR: A15017378

FR 000 00 00 000 0013 0024

AUTHOR: Dikovskiy, Ya. M. (Novosibirsk); Kral'cov, I. I. (Novosibirsk); Teparenko, M. P. (Doctor of technical sciences, Novosibirsk,

TITLE: Relay with a single-reed magnetically controlled contact

SOURCE: Konferentsiya po avtomaticheskому kontrolyu i metodam elektricheskikh izmereniy. 3d. Novosibirsk. 1981. Avtomaticheskiy kontrol' i metody elektricheskikh izmerenii. 3d. Sankt-Peterburg. 1981.

REMARKS: Relay with a single-reed magnetically controlled contact

TOPIC TAGS: single-reed contact magnetically controlled contact single reed contact relay switch design

ABSTRACT: After describing the existing two-reed magnetically controlled contacts (patent No. 888), the article describes a relay with a single-reed magnetically controlled contact. The contact is made of a thin metal strip which is bent into a U-shape. The contact is held in place by a magnetic field generated by a permanent magnet. The contact is closed when the magnetic field is strong enough to overcome the spring force holding the contact open.

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L 60448-69

ACCESSION NR: AT5017378

contacts. They can be used for the switching of low-power circuits for automation, television, etc., particularly in applications where the use of the grid may be undesirable.

ASSOCIATION: none

SUBMITTED: 11Nov64

ENCL: 00

SUB CODE: EE, IE

NO REF SOV: 003

OTHER: 005

Card 2/2

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

KASPEROVICH, A.N. (Novosibirsk); KLISTORIN, I.F. (Novosibirsk); TSAPENKO,  
M.P. (Novosibirsk)

Automatic digital electric meters. Avtometriia no.1:35-44 '65.  
(MIRA 18:7)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

KARANDEYEV, K.B., otv. red.; SOBOL'EVSKIY, K.M., kand. tekhn. nauk,  
red.; TSAPENKO, M.P., doktor tekhn. nauk, red.; SHALINA,  
L.V., red.

[Automatic control and electric measurement techniques;  
transactions] Avtomaticheskii kontrol' i metody elektriches-  
skikh izmerenii; trudy. Novosibirsk, Red.-izd. otdel Sibir-  
skogo otd-niya AN SSSR. Vol.2. 1964. 248 p.

(MIRA 18:5)

1. Konferentsiya po avtomaticheskому контролю и методам  
электрических измерений. 3d, Novosibirsk, 1961. 2. Chlen-  
korrespondent AN SSSR (for Karandeyev).

BEDRINTSEV, K.N., kand.ekonom.nauk; KORZHENEVSKIY, N.L., doktor geograf.  
nauk; KOROVIN, Ye.P., doktor biolog.nauk; SHUVALOV, S.A., kand.  
geologo-mineral.nauk; YAKHONTOV, V.V., prof.; BKLJUZHEV, A.G.;  
GERKUZEN, S.Kh.; PAL'MIN, B.A.; KLEYNENBERG, G.Ye.; BARANOVSKIY,  
M.D.; DOROSHEV, N.T., mladshiy nauchnyy sotrudnik; SCHASTNEV, N.V.;  
TSAPENKO, N.G.; BABAKHODZHAYEV, A.Kh., red.; SUKHANOV, P.P., tekhn.red.

(MIRA 13:7)

[Uzbekistan; economic-geographical features] Uzbekistan: ekonomiko-  
geograficheskaya kharakteristika. Tashkent, 1950. 302 p.

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut ekonomiki.
2. Chlen-korrespondent AN Uzbekskoy SSR (for Korzhenevskiy). 3. Dey-  
stvitel'nyy chlen AN Uzbekskoy SSR (for Korovin). 4. Institut eko-  
nomiki AN Uzbekskoy SSR (for Doroshev).

(Uzbekistan--Economic conditions)

TSAOPENKO, N.G.

Development of productive forces of the Fergana Valley of  
Uzbekistan. Trudy SAGU no.50:71-81 '54. (MLRA 9:7)  
(Fergana--Agriculture)

AKRAMOV, Z.M.; TSAPENKO, N.Q., otvetstvennyy red.; GOLUBEV, M.P., red.  
izd-va; LYUBACHENSKAYA, N.I., red., izd-va; SHEPEL'KOV, A.T.,  
tekhn.red.

[Namangan Province; its economic geography] Namanganskaya oblast';  
ekonomiko-geograficheskii ocherk. Tashkent, Izd-vo Akad. nauk  
Uzbekskoi SSR, 1955. 173 p. (MIRA 11:5)  
(Namangan Province--Economic geography)

TSAPENKO, N.G.

Development and distribution of the productive forces of Uzbekistan  
for the past thirty years. Trudy SAGU no.70:3-48 '55. (MLRA 9:8)  
(Uzbekistan--Economic conditions)

TSAPENKO, N.G., kand.geograf.nauk; KUTAF'YEV, S.A., red.; NAUMOV, K.M.,  
tekhn.red.

[Uzbek S.S.R.; lectures delivered in the Higher Party School of  
Tashkent] Uzbekskaja SSR. Lektsii, prochitannye v Tashkentskoj  
Vysshei partiinoi shkole. Moskva, Izd-vo VPSh i AON pri TsK KPSS,  
1959. 53 p.

(Uzbekistan--Economic conditions)

TSAPENKO, N.G.

Interregional economic relations of the Uzbek S.S.R. Nauch.  
trudy TashGU no.193:185-192 '62. (MIRA 16:7)

(Uzbekistan—Railroads—Freight)

KORZHENEVSKIY, N.L.; DONTSOVA, Z.N.; KHASANOV, Kh.Kh., dots.;  
VASIL'KOVSKIY, N.P.; SKVORTSOV, Yu.A.; POSLAVSKAYA, O.Yu.;  
KOGAY, N.A., dots.; MAMEDOV, E.D.; AKULOV, V.V.; BABUSHKIN,  
L.N., prof.; SHUL'TS, V.I., prof.; GORBUNOV, B.V.; GRANITOV,  
I.I.; KOSTIN, V.P.; SMIRNOV, N.V., dots.; TSAPENKO, N.G.,  
dots.; DEGTYAR', V.I.; CHERNOV, P.N.; MUKMINOV, P.G.;  
SELIYEVSKAYA, A.A.; RYABCHIKOV, A.M.; DALIMOV, N.D., dots.;  
LOBACH, Kh.S.; TADZHIMOV, T.; ARKAD'YEVA, A.N.; GAL'KOV,  
Ch.V.; SHTARKLOVA, S.I.; BESSONOV, M., red.; BAKHTIYAROV, A.,  
tekhn. red.

[The Uzbek S.S.R.] Uzbekskaya SSR. Tashkent, Gos.izd-vo  
UzSSR, 1963. 483 p. (MIRA 16:8)  
(Uzbekistan)

TSAPENKO, N.G.

The economic zoning of Central Asia. Trudy TashGU no.186:188-200  
'61. (MIRA 14:12)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.  
(Soviet Central Asia--Economic zoning)

TSAPEJKO, Nikolay Grigor'yevich; TADZHIMOV, Tursunbay

[Kara-Kalpak A.S.S.R.; a concise reference manual] Kara-Kalpakskaia ASSR; kratkii spravochnik. Tashkent, Gos. izd-vo Uzbekskoi SSR, 1960. 108 p. illus., fold. map. (MIRA 15:3) (Kara-Kalpak A.S.S.R.)

BABUSHKIN, L.N., prof., otv.red.; GAL'KOV, Ch.V., red.; LOBACH, Kh.S., red;  
SMIRNOV, N.V., red.; TSAPENKO, N.G., red.

[Kashka-Darya Province] Kashka-Dar'inskaia oblast'. Tashkent, Izd-vo  
SAGU, Vol.2. [Economic-geography] Ekonomiko-geograficheskaiia  
kharakteristika. 1959. 242 p. (Tashkent. Universitet. Trudy  
Sredneaziatskogo gosudarstvennogo universiteta, no.156). (MIRA 14:5)  
(Kaska-Darya Province—Economic geography)

TSAPENKO, Nikolay Grigor'yevich; TADZHIMOV, Tursunbay; RAYEVSKIY, L.A.,  
red.; BAKHTIYAROV, A., tekhn. red.

[The Kara-Kalpak A.S.S.R.; concise handbook] Kara-Kalpakskaia  
ASSR; kratkii spravochnik. Tashkent, Gos.izd-vo Uzbekskoi SSR,  
1960. 108 p. (MIRA 15:2)  
(Kara-Kalpak A.S.S.R.—Handbooks, Manuals)

TSAPENKO, N.G.

[The Uzbek S.S.R.] Uzbekskaya SSR lektsii, prochitannye v Tashkent-skoii Vysshei partiinoi shkole. Moskva, Izd-vo VPSH i AON pri TsK KPSS, 1959. 53 p.

(MIRA 14:7)

(Uzbekistan--Geography)

KATSHUK, A.P.; TSAPENKO, V.F.

Methodology of the implantation of electrodes for electro-  
encephalographic observations on rabbits. Fiziol. zhur. 51  
no.5:626-627 My '65. (MIRA 18:6)

1. Laboratoriya patogeneza i patogeneticheskoy terapii  
Ukrainskogo instituta eksperimental'noy i klinicheskoy onkologii,  
Kiyev.

I 29191-66

ACC NR: AP6019083

SOURCE CODE: UR/0239/65/051/005/0626/0627

AUTHOR: Kapshuk, A. P.; Tsapenko, V. F.ORG: Laboratory of Pathogenesis and Pathogenetic Therapy, Ukrainian Institute of Experimental and Clinical Oncology, Kiev (Laboratoriya patogeneza i patogeneticheskoy terapii Ukrainskogo instituta eksperimental'noy i klinicheskoy onkologii)TITLE: Technique of electrode implantation for electroencephalographic studies <sup>22</sup>  
on rabbitsSOURCE: Fiziologicheskiy zhurnal SSSR, v. 51, no. 5, 1965, 626-627

TOPIC TAGS: rabbit, EEG, brain, electrode, electrophysiology

ABSTRACT: Preparation of the skull to affix a block containing electrodes may injure the brain and affect the EEG. To prevent injury to the brain, the following method is used. After a section of skin and the periosteum under it have been removed from the skull of anesthetized rabbits, needle electrodes made of stainless steel are pressed in through the bone of the skull. The electrode needles are equipped with metal sleeves. After the needle electrodes have been inserted into the skull, medical styraacryl is applied to the bone. The styraacryl on hardening holds the electrodes firmly in place. Orig. art. has 2 figures. /JPRS/

SUB CODE: 06/ SUEM DATE: 08Aug63/ ORIG REF: 004 / OTH REF: 002

Card 1/1 BlG

UDC: 612.822.3.087

ACC.NR: AP7007585

SOURCE CODE: UR/3132/06/005/002/0038/001.0

AUTHOR: Dembrayev, R. N. (Candidate of technical sciences); Koval', A. V.; Tsapenko, V. N.

ORG: none

TITLE: Arbitrary-form pulse generator

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 2, 1966, 38-40

TOPIC TAGS: pulse generator, computer memory

ABSTRACT: The Kiev Polytechnical Institute has developed a test generator which produces a model of any curve which is a single-valued time function, using the piecewise-stepped approximation. The generator provides for relatively rapid change in signal form, smooth change in pulse length (1.5 - 1,000 msec) and pulse repetition frequency (0 - 200 p/sec). External synch with firing pulse delay of 5 - 5,000 msec can be used. The unit uses a memory device with a code-to-signal converter and readout system. The memory unit includes 350 memory cells divided into 50 address channels. The article presents a block diagram of the device plus oscillograms of pulses formed in triangular and bell form. The primary error in the system as of now is the error of conversion from code to signal, which can be reduced by using a signal-to-code converter with more bit positions.  
Orig. art. has: 2 figures. [JPRS: 36,501]

Card 1/1

UDC: 621.373.431.3

092813-21

TSAPENKO, Ye.F., kand.tekhn.nauk

Analizing the operation of rectifier circuits used for checking  
insulation. Prom.energ. 15 no.3:35-38 Mr '60.  
(MIRA 13:6)

(Electric insulators and insulation—Testing)  
(Electric current rectifiers)

TSAPENKO, Yu.Y., kand.tekhn.nauk

Dangers of electric shock during varying operating conditions. Vest.elektroprom. 31 no.2:73-76 F '60.  
(MIRA 13:6)  
(Electricity, Injuries from)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

Chernobyl, Z.S.P., Kursk, Tver, etc.

Transient processes in transformer circuits. Transient processes  
in electrical networks. Power systems.

4. Moscow power system transmission and distribution networks.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

GREYSUKH, M.V.; YERMILOV, A.A.; ZALESSKIY, Yu.Ye.; KAZYMOV, A.A.;  
KATSEVICH, L.S.; KIRPA, I.I.; KIREYEV, M.I.; KNYAZEVSKIY,  
B.A.; KOFMAN, K.D.; KRZHAVANIK, L.V.; KUZNETSOV, P.V.;  
MOROZOV, K.S.; RAKOVICH, I.I.; RYABOV, M.S.; SVENCHANSKIY,  
A.D.; SOKOLOV, M.M.; SYCHEV, L.I.; TVERDIN, L.M.; KHEYFITS,  
M.E.; SHULIMOV, Ye.V.; EPSHTEYN, L.M.; SHCHEGOL'KOV, Ye.I.;  
~~TSAPENKO, Ye.F.~~; FEDOROV, A.A., *glav. red.*; SERBINOVSKIY, G.V.,  
red.; BOL'SHAM, Ya.M., red.; BRANDENBURGSKAYA, E.Ya., red.;  
TVERDIN, L.M., red.; FRIDKIN, L.M., *tekhn. red.*

[Handbook for power engineers of industrial enterprises in  
four volumes] Spravochnik energetika promyshlennyykh pred-  
priatii v chetyrekh tomakh. Moskva, Gosenergoizdat.  
Vol.2. [Electric-power supply (conclusion), use of electric  
power and electrical equipment in some branches of industry]  
Elektrosnabzhenie (okonchanie), priemniki elektroenergii i  
elektrooborudovanie nekotorykh otraspeli promyshlennosti. Pod  
obshchei red. A.A.Fedorova (glav. red.), G.V.Serbinowskogo i  
IA.M.Bol'shama. 1963. 880 p. (MIRA 16:7)  
(Power engineering--Handbooks, manuals, etc.)  
(Electric power distribution)

TSAPENKO, Ye.F., kand. tekhn. nauk

Semiconductor diodes in the rectifier circuits of automatic control devices. Prom. energ. 17 no.6:37-41 Je '62.  
(MIRA 17:6)

TSAHENKO, Yo.F., kand. tekhn. nauk (Moskva)

Study of rectifier circuits for checking electrical insulation.  
Elektrichestvo no.6:46-50 Je '63. (MIRA 16:7)

(Electric insulators and insulation)

GILULA, I.O.; TSAPENKO, Ye.L.

Cutaneous temperature in lesions of the cerebral cortex. Zh. nevropat.  
psichiat., Moskva 53 no.11:878-881 Nov 1953. (CIML 25:4)

1. Department of Nervous Diseases of Kiev Medical Stomatology Institute.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

NOSKOV, N.S., kand.tekhn.nauk, TSAGENKO, V.G., kand.tekhn.nauk;  
ZVEMDEIN, A.S., irm.; BRODSKIY, P.I., kand.

Control of liquid flow into a vessel using magnetodes. Proz. energ.  
(MIRA 17:4)  
17 no.12:36-31 R 761.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

TSAPENKO ~~X-67~~.

Circuits with changing neutral systems. Trudy MBI no. 28:224-236 '56.  
(Electric currents--Grounding) (MIRA 10:6)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

TSAPENKO, Ye. F. Cand Tech Sci -- (diss) "Neutral Mode in Networks  
of Up to 1,000 Volts From the ~~8x~~ Standpoint of Safety." Mos, 1957.  
14 pp 21 cm. (Min of Higher Education USSR, Mos Order of Lenin  
Power Engineering Int im V. M. Molotov), 100 copies (KL, 26-57,109)

TSAPENKO, Ye.F., inzhener.

Earth-fault protection in 220-380 volt networks of mobile equipment.  
Prom.energ. 12 no.2:26-27 F '57. (MLRA 10:3)

1. Moskovskiy energeticheskiy institut imeni V.M. Molotova.  
(Electric relays)

TSAPENKA, Ye.F., inzhener.

Detecting contact to ground in networks with an insulated neutral  
to 1000 v. Prom. energ. 12 no.7:7-8 Jl '57. (MLRA 10:8)

1. Moskovskiy Energeticheskiy institut imeni Molotova.  
(Electric currents--Grounding)

AUTHOR: Tsapenko, Ye. F. (Moscow)

105-58-4-14/37

TITLE: Conditions for the Safe Operation of Networks With Ungrounded Neutral (Usloviya bezopasnoy ekspluatatsii setey s isolirovannoy neytral'yu)

PERIODICAL: Elektrичество, 1958, Nr 4, pp. 62 - 63 (USSR)

ABSTRACT: The critical values for the insulation resistance taking into account the phase capacity with regard to the earth at which the touching of a phase becomes harmless are given. The principal schemes of the three-phase network with ungrounded neutral are given, the first phase of which is touched by an individual. It is shown that a safe operation of a three-phase network with ungrounded neutral is then secured when the resistance of any phase of the network in relation to the earth is greater than the value  $r_k = i/g_k$ , determined from the deduced equation (8),  $r_k$  denotes the critical resistance,  $g_k$  the critical conductivity. In the special case where the phase capacity with regard to the earth can be neglected the magnitude of the critical conductivity of the insulation can be determined according to the simple formula (9). It is

Card 1/2

Conditions for the Safe Operation of Networks With Ungrounded Neutral 105-58-4-14/37

further shown that at  $S_2 = S_3$  a network with ungrounded neutral, independent from the capacity of the network, is less dangerous than a network with grounded neutral when the resistance of any phase is not smaller than the resistance of the human body. There are 2 figures.

SUBMITTED: May 13, 1957

AVAILABLE: Library of Congress

1. Electrical networks-Safety measures    2. Electrical networks-  
Operation

Card 2/2

SOV/94-58-10-17/20

AUTHOR: Tsapenko, Ye.F., Candidate of Technical Sciences

TITLE: Valve Circuits for Insulation Control and Earth Fault Protection on Systems of up to 1 kv with Insulated Neutral (Ventil'nye skhemy kontrolya izolyatsii i zashchity ot zamykaniy na zemlyu setey s izolirovannoy neytral'yu do 1,000 v.)

PERIODICAL: Promyshlennaya Energetika, 1958, Nr 10, pp 27-29 (USSR)

ABSTRACT: Two different types of circuits are now used to protect systems with insulated neutral against insulation faults; those that react to zero phase sequence voltage and those that respond to an operating current; of these the latter are preferred but require an auxiliary current source. In recent years much work has been done on the development of other circuits, particularly valve circuits, in which the instrument that measures the state of the insulation and the disconnecting relay are connected to the three phases of the system through rectifiers. These systems are advantageous but have not been adequately studied. A schematic circuit diagram of a protective and insulation control

Card 1/3

SOV/94-58-10-1?/20

Valve Circuits for Insulation Control and Earth Fault Protection  
on Systems of up to 1 kv with Insulated Neutral

system based on semi-conductor rectifiers is given in Fig.1. The operation of the system is explained, the occurrence of symmetrical or asymmetrical leakages cause a current to flow in one direction through the relay P. The magnitude of this current is practically independent of the phase capacitance to earth since this capacitance is of high impedance to rectified current. However, switching of systems with very high capacitance can give rise to an appreciable charging current and false operations of the relay P might occur unless appropriate precautions were taken. The effect of the resistance R on the current wave shape is then considered. With zero resistance and ideal rectifier characteristics the wave shape would be as shown in Fig.2. If the resistance R is very great the current wave shape would be as shown in Fig.3. A method of selecting the value of R is then explained, the appropriate value of R depends on the type of relay. By way of example calculations are then made of the components of a valve circuit required to disconnect

Card 2/3

SOV/94-58-10-1?/20

Valve Circuits for Insulation Control and Earth Fault Protection  
on Systems of up to 1 kV with Insulated Neutral

a 380 v system when the total insulation resistance  
to earth falls to 3,300 ohms. The operating current  
must not exceed 5 mA. A relay is selected, the  
appropriate resistance values are worked out, and the  
necessary size of selenium rectifier is determined.  
There are 3 figures and 2 literature references 1 of  
which is Soviet and 1 German.

Card 3/3

TSAPENKO, Ye.F., kand.tekhn.nauk; SYCILSV, L.I., inzh.

Transistorized devices for checking the electrical insulation  
of three-phase networks with an insulated neutral line carrying  
voltage up to 1,000 volts. Prom.energ. 16 no.7:32-35 J1 '61.  
(MIRA 15:1)

(Electric insulators and insulation--Testing)  
(Electric measurements)

GILJULA, I.O., prof. (Kiyev); NOVIK, I.O., prof. (Kiyev); TSAPENKO,  
Ye.L., kand.med.nauk (Kiyev)

Higher nervous activity in patients with paradentosis. Probl.  
stom. 4:7-14 '58. (MIRA 13:6)  
(NERVOUS SYSTEM) (GUMS--DISEASES)

TSAPENKO, Yu.T., priyemshchik lokomotivov

Device for testing the balloons of fire extinguishers. Elek. i tepl.  
tiaga 7 no.11:29 N '63. (MIRA 17:2)

1. Depo Tashkent.

ACC NR: AP7001516 (N) SOURCE CODE: UR/0229/66/000/011/0022/0024

AUTHOR: Khandov, Z. A.; Tsapenko, Yu. T.

ORG: None

TITLE: Improving the cavitation erosion resistance of cylinder sleeves and blocks in marine diesels

SOURCE: Sudostroyeniye, no. 11, 1966, 22-24

TOPIC TAGS: cavitation, engine cylinder, diesel engine, marine engineering, corrosion resistance, water, engine cooling system

ABSTRACT: The authors discuss methods for reducing cavitation destruction of the sleeves and water jackets in marine diesels. Conventional methods for reducing sleeve corrosion include: 1. elimination of factors contributing to the development of cavitation bubbles in the space behind the jacket; 2. increasing the corrosion resistance of the sleeve and block surfaces exposed to water and 3. reducing the force of hydraulic shocks generated with the collapse of cavitation bubbles. Cavitation wear may be reduced by increasing the temperature level of the water in the cooling system or by reducing the pressure in the space behind the jackets. The disadvantages of raising the temperature of the cooling water are discussed and it is concluded that pressure reduction is preferable. This may be done by limiting the delivery rate of the water pump, reducing the quantity of water fed into the block during heating of

Card 1/2

UDC: 621.431.74-222:621.436

ACC NR: AP7001516

the engine, using a cooling system with circulation paths through the block and through the discharge receiver, maintaining optimum temperature conditions in each path, and using a cooling system with separate water supply to the block and the cylinder head. Operational tests of these measures on high-speed M50-F3 marine diesels installed on hydrofoil boats showed no signs of cavitation corrosion after 800-900 hours of operation although the same engines with conventional cooling systems show pits with a depth of 2-3 mm after this same time period. Similar tests show that the service life of sleeves in 3D6 engines may be extended to 8000-10000 hours as compared to 3000-5000 hours of engine operation with conventional cooling systems. Orig. art. has: 1 figure.

SUB CODE: 13, 21/ SUBM DATE: None

Card 2/2

BEVI, Ya.L., prof.; SEMENOVA, G.I., nauchnyy sotrudnik; TSAPIKOVSKAYA,  
N.G., kand.med.nauk (Khar'kov)

Hexonium as a drug used in preparing patients with pronounced  
form of thyrotoxicosis for surgery. Probl.endok.i gorm. 5  
no.5:61-64 S-0 '59. (MIRA 13:5)

1. Iz klinicheskogo otdela (zav. - prof. M.A. Kopelovich) Ukrainskogo  
instituta eksperimental'noy endokrinologii (dir. - kand.

med.nauk S.V. Maksimov).  
(HYPERHYROIDISM surg.)  
(AUTONOMIC DRUGS ther.)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

TSAPIN, A.M., inzh.

Checking welded joints in the installation of thermomechanical equipment.  
Energetik 8 no. 10:13-14 0 '60. (MIRA 14:1)  
(Pipelines--Welding)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

AUTHOR: Tsapin, A.M., Engineer.

104-2-20/38

TITLE: Simplified method of lifting a boiler drum weighing 45 tons with a bridge crane rated at 30/5 tons. (Uproshchennyj podem barabana vesom 45 t mosotovym kranom gruzopodemnost'yu 30/5 t.)

PERIODICAL: "Elektricheskie Stantsii" (Power Stations), 1957,  
Vol.28, No.2, page 77, (U.S.S.R.)

ABSTRACT: This is a short practical note. A method of lifting a 45 ton boiler drum with a 30/5 ton crane has already been described; a simplified method is described here in which pulley blocks were used to lighten the load on the lifting mechanism, it was calculated that the loads on the crane span and supports would not be excessive. The operating procedure is described. It took 1 hr 10 min to lift the drum, the preparatory work occupied 5 men for two hours and an hour was required to remove the equipment, so that the time required for auxiliary work was much less than before. The method is recommended for future application. There is 1 Slavic reference.

AVAILABLE:

Card 1/1

SHUMOV, N.S., kand.ekonom.nauk; LAPTEV, Ye.N.; KAZANTSEV, A.I., kand.ekonom.nauk; ZUYEVA, Z.I.; KOCHEGAROVA, A.I.; SHRAYBER, I.I., kand.ekonom.nauk; TSAPIN, L.T.; KITAYGORODSKIY, I.P.; ZAVERNYAYEVA, L., red.; TELEGINA, T., tekhn.red.

[Payments in industry] Reschety v promyshlennosti. Moskva,  
Gosfinizdat, 1959. 125 p. (MIRA 12:11)

1. Moscow. Nauchno-issledovatel'skiy finansovyy institut. 2. Zaveduyushchiy otdeleniyem Nauchno-issledovatel'skogo finansovogo instituta Ministerstva finansov SSSR (for Shumov). 3. Starshiy ekonomist Nauchno-issledovatel'skogo finansovogo instituta Ministerstva finansov SSSR (for Laptev). 4. Nachal'nik upravleniya kreditovaniya promyshlennosti sovnarkhozov Pravleniya Gosbanka SSSR (for Kazantsev). 5. Nachal'nik planovo-ekonomiceskogo otdela Moskovskoy gorodskoy kontory Gosbanka (for Zuyev). 6. Ekonomist Moskovskoy gorodskoy kontory Gosbanka (for Kochegarova). 7. Zamestitel' nachal'nika planovo-ekonomiceskogo upravleniya Rossiyskoy respublikanskoy kontory Gosbanka (for Shrayber). 8. Glavnnyy bukhgalter moskovskogo khlebozavoda No.4 (for Tsapin). 9. Ekspert otdela kredita i denezhnogo obrashcheniya Ministerstva finansov SSSR (for Kitaygorodskiy).

(Payment)

TSAPIN, P.D., inzh.

Mechanized lifting of crankshafts during the repair of piston engines.  
Sudostroenie 25 no.2:54-56 F '59. (MIRA 12:4)  
(Marine engines--Maintenance and repair)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

LYUECHANSKII, I. I.; TSAPINA, N. A.; KUD'YINSKIY, A. S.

Studying the relationship between the chemical relaxation of  
stresses and the failure of rubber seals. Nauch. i rez. 24  
no. 9:13-16 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy institut reshnoy promyshlennosti.

L.4282-66 ENT(m)/EPF(c)/EWP(v)/EWP(j)/T W/DJ/RM  
ACCESSION NR: AP5024105 UR/0138/65/000/009/0013/0016

678.06:626.762.004.17

44,55

44,55

50  
47  
B

AUTHOR: Lyubchanskaya, L. I.; Tsapina, N. A.; Kus'minskly, A. S.

TITLE: Study of relationship between chemical stress relaxation and decrease of the fatigue life of sealing substances 15,44,55

SOURCE: Kauchuk i rezina, no. 9, 1965, 13-16

TOPIC TAGS: vacuum seal, hermetic seal, natural rubber, nitrile rubber, stress relaxation 11 11

ABSTRACT: The article deals with the loss of airtightness of a vacuum system as a result of contact leakage, which occurs when the contact stress falls below a certain critical value owing to aging of the sealing substance. A special apparatus was constructed in order to determine the relationship between the contact stress and the airtightness of a vacuum system, and to study the effect of various factors on the critical stress. Ring gaskets made of rubbers differing in polymer type, vulcanizing groups, filler type, and degree of filling were tested. Studies of gaskets based on natural, fluorinated (SKF-26), butadiene-nitrile (SKN-26), and silicone (SKTV-1) rubber showed that loss of vacuum 15 15

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L 4282-66

ACCESSION NR: AP5024105

occurs at approximately the same contact stress, equal to  $1 - 2 \text{ kg/cm}^2$ , independent of  
the type of rubber, aging temperature, or degree of deformation. Orig. art. has: 5  
figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific  
Research Institute of the Rubber Industry)

SUBMITTED: 00

4455  
ENCL: 00

SUB CODE: MT,

NO REF SOV: 005

OTHER: 000

Card 2/2 Pp

TSAPINSKIY, V.A., starshiy elektromekhanik

Method for locating damage in electric cables involving the use  
of two grounded strands. Avtom., telen. i sviaz: 6 no.4:33  
Ap '62. (MIRA 15:4)

1. Omskaya distantsiya signalizatsii i svyazi Zapadno-Sibirskoy  
dorogi.  
(Electric cables...Testing)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

TSAPIV, I.

"The simplest tube voltmeter."

So. Radio, Vol. 4, p. 51, 1952

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

TSAPIV, I.I. --

"Some Questions Concerning the Use of Stationary Oscillograms in  
Polarography." Cand Chem Sci, L'vov State U, Khar'kov, 1954. (RZhKhim  
, No 20, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR  
Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

TS APIK 1.1

✓ 3288. Oscillographic polarograms of simple metal  
ions. I. I. Teply (Zavod. Lab., 1955, 21 [16;  
286-288]). The oscillographic polarograph described  
previously (*Ibid.*, 1952, 18, 7) is applied to the  
determination of Cu, Cd and Pb. Silver electrodes  
are used in a medium of 0.5 or 1 N KCl, and the  
potential is applied in separate triangular impulses  
with a ratio between the duration and period of  
0.72 to 0.80. G. S. Smith

L'vov Polytech. Inst.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756910018-3"

112-2-3747

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,  
Nr 2, p.179 (USSR)

AUTHOR: Tsapiv, I.I.

TITLE: Electron-Ray Polarographic Instruments (Elektronno-luchevyye polyarograficheskiye pribory)

PERIODICAL: Nauch. zap. L'vovsk. politekhn. in-t, 1956, Nr 22,  
pp.29-38

ABSTRACT: Having made a critical review of the well known methods of oscillographic polarography (the methods of Mateson, Heyrovsky and others), the author describes his apparatus which is a development of the Mateson method. The saw-tooth voltage from the sweep generator is fed to the horizontally deflecting oscillograph plates. The saw-tooth voltage passes at the same time to the input of the so called linear jump generator which transforms the high voltage of the sweep generator into triangular pulses with an amplitude of up to 2v and an interval factor of from 1.0 to 2.0. The linear jump generator

Card 1/2

112-2-3747

Electron-Ray Polarographic Instruments (Cont.)

pulses flow in their turn to the polarographic electrolyte which is in series with the load resistance. After amplification, the voltage from this resistance which is proportional to the polarographic current, falls on the vertically deflecting oscillograph plates. The basic connection diagrams of the individual units of the apparatus are given. It is pointed out that the frequency of the sweep generator has to be within the 15 to 25 cps range, while subharmonics of power frequency (for 50 cps = 25, 16.6, 12.5 and 10) cannot be used due to the effect of alternating current induction. Three linear jump-generator designs are proposed which can be used as adapters to commercial oscillographs. Recommendations are made as to the selection of a polarographic unit with a different period of drop formation, a polarographic current amplifier and a cathode-ray instrument.

E.A.G.

Card 2/2

TSAPIV, I. (UB5TD) (L'vov)

The "ordinary" radio amateurs should be kept in mind.  
Radio no.4:10-11 Ap '63. (MIRA 16:3)  
(Radio operators)  
(Amateur radio stations)

VOYTIK, M.I. [Voytik, M.I.]; Vasil'ev, V.P.

Effect of magnetic fields on the decrease of insulation in steam boilers. Dokl. IIT 5 no. 17/138. MO '63. (MIA 12/1)

I. 37080-66 EWP(k)/EWT(d)/EWT(m)/T-2/EWP(w)/EWP(f)/EWP(v) IJP(c) EM/MW  
ACC NR: AP6011334 (N) SOURCE CODE: UR/0198/66/002/003/0106/0110

52

B

AUTHOR: Tsaplin, M. I. (Moscow)

ORG: none

TITLE: Thermal stress with cooling of gas turbine disks 2<sup>3</sup>  
24 24

SOURCE: Prikladnaya mekhanika, v. 2, no. 3, 1966, 106-110

TOPIC TAGS: gas turbine, thermal stress, cooling effect, cooling system / AI-20A gas turbine

ABSTRACT: The effectiveness of the cooling system for rotor disks of gas turbines is studied. An experimental device was designed and prepared for determining the injection caused by the pumping action of the rotating disk (see Fig. 1). The device consists of a two-disk rotor 1, which is set into rotation by means of a booster and multiplier. The casing 2 is equipped with a system of inlet and outlet air jackets which adjoin the indentations 3. The fittings 4 are used for measuring the velocity field. Measurements were made of the variation of the value  $\psi = \frac{\Delta P/\gamma}{U^2/g}$ ,

which is proportional to the pressure difference between points 5 and 6, with the dimensionless flow rate  $q = \frac{3600G}{\gamma \omega R^3}$  and the relative clearance  $\delta/R$  (see Fig. 2). The data obtained lead to the conclusion that for a gas-turbine of type AI-20A a pressure

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ACC NR: AP6011334

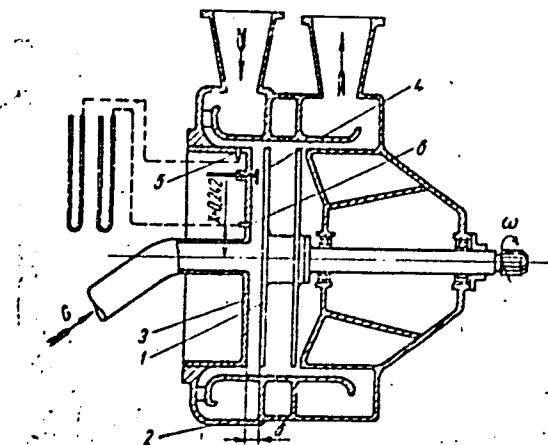


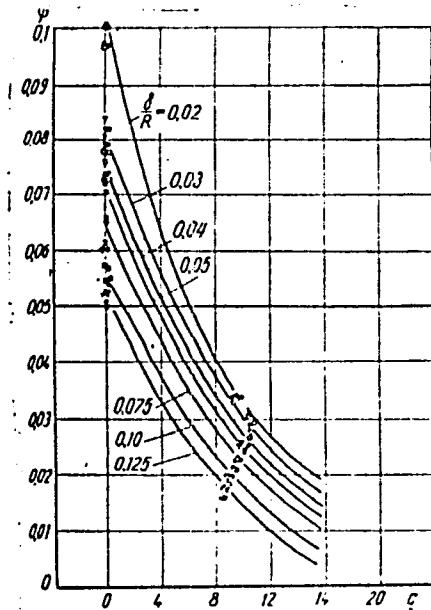
Fig. 1.

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Fig. 2.



difference between the peripheral and the central sections of about  $(2--2.5) \cdot 10^4$  n/m<sup>2</sup> arises at the fixed deflector around the first step disk. These and other observations are compiled in reaching recommendations for improving the circulation and cooling capability of the air cooling systems. Orig. art. has: 4 figures.

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5(2)

SOV/78-4-10-15/40

AUTHORS:

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TITLE:

Compounds of Uranyl With 1,10-Phenanthroline and 2,2'-Dipyridyl

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 10,  
pp 2261-2267 (USSE)

ABSTRACT:

Complex compounds of uranyl with the U....N bond are little known so far. The authors therefore investigated the formation of such complexes with the heterocyclic diamines 1,10-phenanthroline ( $C_{12}H_8N_2 \cdot H_2O$ ) and 2,2'-dipyridyl ( $C_{10}H_8N_2$ ). Due to the symmetric structure of these compounds the formation of a pentacyclic ring and thus a sufficient stability of the complex was to be expected, so that these complexes had to be accessible not only from alcoholic but also from aqueous solutions. This assumption was confirmed. The experimental part describes in detail the resultant complex compounds and analyses. The following compounds were produced: 2,2'-dipyridyl- and 1,10-phenanthroline complexes of uranyl nitrate, - chloride, -sulphate, -acetate, -oxalate and hydroxide. In the presence of strong acids no complex compound is formed since the proton affinity of nitrogen is more intense than the affinity of the

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